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MF

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/302,471 | 04/30/1999 | TATSUHIKO SHIBUYA | 774-98129 | 6935 |

7590 01/22/2002

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EXAMINER

BRUNSMAN, DAVID M

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

1755

DATE MAILED: 01/22/2002

19

Please find below and/or attached an Office communication concerning this application or proceeding.

MF-19

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application N . | Applicant(s) | |
| | 09/302,471 | SHIBUYA ET AL. | |
| | Examiner | Art Unit | |
| | David M Brunzman | 1755 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 November 2002 and 07 December 2001 .
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 7 and 10-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Takei et al.

The reference teaches a method of forming a coating composition and coating a substrate wherein 100g TMOS, 500g of methanol, 360g of DMF and, 266g of THF alcohol are admixed. To this composition are added 1.2×10^{-4} moles ammonium compound base per 100g silane compound and 390g water. The composition is deposited on a substrate and dried at 50-180°C. The material is baked at 1400-1500°C. During processing the composition passes through 5-25% by weight silane condensate in terms of SiO₂ during drying wherein the alcohol solvent is volatilized and replace with DMF. During baking the material passes through 350-800 C.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takei et al as applied above, and further in view of Tomikawa et al.

The difference between Takei et al and the instant claims is the base catalyst employed. Paragraph 22 of Tomikawa et al teach that ammonium compounds, ammonia and other amines are all known in the instant art as basic amine catalysts for similar compositions. It would have

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been obvious to one of ordinary skill in the art to employ an ammonia catalyst because Tomikawa et al teaches it is equivalent to the bases of Takei et al.

Applicant's arguments filed 15 November 2001 have been fully considered but they are not persuasive. Column 2, line 11 of Takei et al teaches the formation of overlying batch of sol, (i.e. a sol). In example 1 the step of pouring the sol into a Teflon[®]-coated mold is indistinguishable from a simple coating step. The coating versus monolith issue is fully addressed at the bridging paragraph of pages 2-3 of the office action issued 27 February 2001. Step (b) of the instant invention forms a "hydrolysis-condensation" product of polyalkoxysilane that is not distinguished from the prior art. The proportion of water recited in claim 11 as anticipated by the prior art is fully addressed in the prior office action. The methyl *alcohol*, DMF and tetrahydrofural *alcohol* mixture of the prior art is clearly an alcohol solvent. As set forth in the last office action, the inherent replacement of the solvent is disclosed in the prior art.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M Brunsman whose telephone number is 703-308-3454. The examiner can normally be reached on Mon 7-5:30, Wed noon-9, Fri 7am-7:30pm, Sat 7-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on 703-308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9049 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

David M Brunsman
Primary Examiner
Art Unit 1755

A handwritten signature in black ink, appearing to be 'DMB', followed by a long horizontal line that curves upwards at the end.

DMB
January 19, 2002